

ABSTRACT

An energy storage device, such as an electrical storage battery, having a unique terminal structure, sealing arrangement and an S-shaped mandrel for the electrode assembly. The battery generally includes a case in which an electrode assembly is disposed, and a cover provided with a fill hole and fill plug, and a terminal structure that forms a battery terminal. The terminal hole and the fill hole have counter bore structure to provide tighter sealing. A nickel layer is provided on the aluminum fill plug to facilitate electrical contact with the external circuit. A mandrel is provided for the rolled electrode assembly, and is electrically coupled to the terminal structure via a push-in tab inserted into a space in the S-shape of the mandrel.